



St James' Church of England Primary School

Key Learning in Science – Sound



Key Learning: Sound

Key Learning	Notes and guidance (Non-statutory)	Working Scientifically (Featured skills)
<p>KS1 - Not statutory within NC2014</p> <p>LKS2: Year 4 – Sound</p> <p>Vibrations</p> <ul style="list-style-type: none">▪ Identify how sounds are made, associating some of them with something vibrating.▪ Recognise that vibrations from sounds travel through a medium to the ear.▪ Find patterns between the volume of a sound and the strength of the vibrations that produced it.▪ Recognise that sounds get fainter as the distance from the sound source increases.▫ Sounds can be made in a variety of ways (pluck, bang, shake, blow) using a variety of things (instruments, everyday materials, body).▫ Sounds travel away from their source in all directions.▫ Vibrations may not always be visible to the naked eye. <p>Pitch</p> <ul style="list-style-type: none">▪ Find patterns between the pitch of a sound and features of the object that produced it.▫ Sounds can be high or low pitched.▫ The pitch of a sound can be altered.▫ Pitch can be altered by changing the material, tension, thickness or length of vibrating objects or changing the length of a vibrating air column. <p>Muffling/blocking sounds</p>	<p>KS1 - N/A</p> <p>LKS2: Year 4 – Sound</p> <p><i>Pupils should explore and identify the way sound is made through vibration in a range of different musical instruments from around the world; and find out how the pitch and volume of sounds can be changed in a variety of ways.</i></p>	<p>KS1 - N/A</p> <p>LKS2: Year 4 – Sound</p> <ul style="list-style-type: none">• <i>Finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses</i>• <i>They might make ear muffs from a variety of different materials to investigate which provides the best insulation against sound.</i>• <i>They could make and play their own instruments by using what they have found out about pitch and volume.</i> <p><i>Additional suggestion from Lancashire for working scientifically opportunities which enhance learning and support using ICT across the curriculum</i></p> <ul style="list-style-type: none">▫ <i>This unit provides an ideal opportunity for using data logging equipment to detect/measure and compare sounds.</i>

<ul style="list-style-type: none"> ○ Recognise that vibrations from sounds travel through a medium to the ear. ▫ Sounds are heard when they enter our ears (although the structure of the ear is not important key learning at this age phase). ▫ Sounds can travel through solids, liquids and air/gas by making the materials vibrate. ▫ Sound travel can be reduced by changing the material that the vibrations travel through. ▫ Sound travel can be blocked. 		
UKS2 - Not statutory within NC2014 (although schools could choose to divide the above unit into a LKS2 unit on 'Producing Sounds and Vibrations' and an UKS2 unit on 'Pitch and Muffling Sounds')	UKS2 - N/A	UKS2 - N/A